

REMARKS

Claims 1–14 and 16 are pending in this application. By this Amendment, the specification and claim 1 are amended, claims 19–22 are canceled, and Figure 17 is added. Support for Figure 17 may be found, for example, in Figure 1 and paragraph [0081] of the specification. No new matter is added.

Applicant thanks the Examiner for the indication that claims 11–14 contain allowable subject matter.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

I. Interview

The courtesies extended to Applicant's representative by Examiner Rodriguez at the interview held May 8, 2007 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicant's record of the interview.

II. Objection to the Drawings

The Office Action objects to the drawings as failing to comply with 37 CFR §1.83(a). Specifically, the drawings are objected to for allegedly not showing a diffraction grating recited in the claims. As indicated above, attached hereto is a new drawing sheet with Figure 17 depicting the diffraction grating (11a) as required by the Office Action. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

III. Claim Objections

The Office Action objects to claim 1 for an informality. Claim 1 is amended according to the Examiner's helpful suggestion. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

The Office Action objects to claim 19 under 37 CFR §1.75(c) as being of improper dependent form. By this Amendment, claim 19 is canceled. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

IV. Rejection Under 35 U.S.C §102

The Office Action rejects claims 1, 2, 4, 9, and 19 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,093,938 to Minemier et al. ("Minemier"). By this Amendment, claim 19 is canceled, rendering its rejection moot. As to the remaining claims, Applicant respectfully traverses the rejection.

Claim 1 requires "a surface-emitting laser...adhered to the transparent substrate by an adhesive" (emphasis added). The Office Action asserts that the radiation emitting element (20) depicted in Figure 2 of Minemier is inherently adhered to the substrate. As discussed during the personal interview, it is not inherent that it is adhered by an adhesive. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. Certainly, one of skill in the art would recognize that there are a number of ways to adhere such an emitting element to a substrate without the use of adhesives, such as by press fitting.

Additionally, Figures 9 and 10 of the instant application clearly depict an adhesive compound 173 that is distinct from the surface-emitting laser and the substrate. Paragraphs [0097] and [0098] of the specification discuss how a surface-emitting laser is adhered to the substrate with an adhesive, indicating that the adhesive may be applied to the substrate or the surface-emitting laser.

Claim 1 also requires "an integrated circuit chip that is flip-chip mounted on the transparent substrate" (emphasis added). The advantage of such a configuration is discussed in the specification at paragraph [0078]:

Also, since the integrated circuit chip 20 is flip-chip mounted on the transparent substrate 10, a gap between the surface-emitting laser 1 and the photodiode 2 is created. This reduces the likelihood or prevents the surface-emitting laser 1, that is small and thin, from being damaged because of a contact between the surface-emitting laser 1 and the photodiode 2.

Notwithstanding the fact that Minemier discloses that "in one embodiment of the invention, the bond areas 18 and 28 may include solder balls 29 of the type used in conventional chip on board (COB) and flip chip packaging" (*see* column 2, lines 20–22, emphasis added), Minemier does not expressly disclose a flip-chip mounted configuration as required by claim 1. Instead, Minemier discloses that the two dies are fixed together in face-to-face abutment. *See* Figure 4b, claims 5 and 7, and column 2, lines 45 to 53. Additionally, Minemier discusses that one of the disadvantages of combined integrated circuit devices that use metallic interconnections to connect signals traveling between the two dies is that "the footprint or size of the combined integrated circuit device is increased because spacing is needed between the dies to allow the desired interconnections" (emphasis added). *See* column 1, lines 14–20.

For at least these reasons, Minemier does not anticipate claim 1. Claims 2, 4, and 9 variously depend from claim 1 and, thus, also are not anticipated by Minemier. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

V. Rejections Under 35 U.S.C. §103

A. Minemier in view of Swirhun

The Office Action rejects claim 3 under 35 U.S.C. §103(a) over Minemier in view of U.S. Patent No. 6,835,992 to Swirhun et al. ("Swirhun"). Applicant respectfully traverses the rejection.

As discussed above, Minemier does not teach or suggest each and every feature of claim 1. Swirhun fails to remedy the deficiencies of Minemier. Therefore, Minemier and

Swirhun, considered either separately or combined, fail to teach or suggest all of the features of claim 1.

Claim 1 would not have been rendered obvious by Minemier and Swirhun. Claim 3 depends from claim 1 and, thus, also would not have been rendered obvious by Minemier and Swirhun. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Minemier in view of Lebby

The Office Action rejects claims 5–8 under 35 U.S.C. §103(a) over Minemier in view of U.S. Patent No. 5,838,703 to Lebby et al. ("Lebby"). Applicant respectfully traverses the rejection.

As discussed above, Minemier does not teach or suggest each and every feature of claim 1. Lebby fails to remedy the deficiencies of Minemier. Therefore, Minemier and Lebby, considered either separately or combined, fail to teach or suggest all of the features of claim 1.

Claim 1 would not have been rendered obvious by Minemier and Lebby. Claims 6–8 variously depend from claim 1 and, thus, also would not have been rendered obvious by Minemier and Lebby. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Minemier in view of Ramdani

The Office Action rejects claim 16 under 35 U.S.C. §103(a) over Minemier in view of U.S. Patent No. 5,832,017 to Ramdani et al. ("Ramdani"). Applicant respectfully traverses the rejection.

As discussed above, Minemier does not teach or suggest each and every feature of claim 1. Ramdani fails to remedy the deficiencies of Minemier. Therefore, Minemier and

Ramdani, considered either separately or combined, fail to teach or suggest all of the features of claim 1.

Claim 1 would not have been rendered obvious by Minemier and Ramdani. Claim 16 depends from claim 1 and, thus, also would not have been rendered obvious by Minemier and Ramdani. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

VI. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jeffrey R. Bousquet
Registration No. 57,771

JAO:JRB

Attachment:

New Drawing Sheet

Date: May 10, 2007

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--